SYSTEM AND METHOD FOR CONTEXT BASED PREDICTIVE TEXT ENTRY ASSISTANCE

TECHNICAL FIELD

[0001] The present disclosure relates generally to mobile electronic devices, and more particularly to a system and method for context based predictive text entry assistance.

BACKGROUND

[0002] People increasingly have mobile electronic devices, such as cellular phones, personal digital assistants, pagers, etc. Many mobile electronic devices have keyboards, touch screens, or other user input devices that allow the user to enter text into an application, such as a word processor or email application. Entering text on mobile electronic devices can be a cumbersome task, particularly where a user who is in transit must rely on the mobile electronic device for email connectivity.

[0003] Some basic predictive text entry assistance solutions are known, such as predicting which word a user is entering and offering options for completing the word based purely on a comparison of the word entered by the user so far with available words in a dictionary. However, these solutions are of limited value and often require the user to enter most or all of the word before the solution suggests the word the user is trying to enter. Requiring a user to enter text in such a thorough and cumbersome way wastes limited processing resources and battery power on the mobile electronic device and wastes the user's time.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] Reference will now be made to the drawings, which show by way of example, embodiments of the present disclosure, and in which:

[0005] FIG. **1** shows in block diagram form a wireless device suitable for implementing a system and method for context based predictive text entry assistance in accordance with one embodiment;

[0006] FIG. **2** shows in block diagram form a communication system suitable for providing the operating environment of the wireless device of FIG. **1** in accordance with one embodiment;

[0007] FIG. **3** shows in block diagram form the contents of a memory of the wireless device of FIG. **1**;

[0008] FIG. **4** is a front view illustrating the wireless device of FIG. **1**;

[0009] FIG. **5** shows in flowchart form a method for context-based predictive text input in accordance with one example embodiment;

[0010] FIG. **6** shows a screen shot of an example user interface for implementing context-based predictive text input in accordance with one example embodiment; and

[0011] FIG. **7** shows a screen shot of another example user interface for implementing context-based predictive text input in accordance with one example embodiment.

[0012] It will be noted that throughout the appended drawings, like features are identified by like reference numerals.

DETAILED DESCRIPTION

[0013] One aspect of the description provides a device comprising a processor for controlling operation of the device; a keyboard coupled to the processor for accepting an input; at least one display device coupled to the processor for communicating an output; a memory coupled to the processor; and a storage device coupled to the processor. The device includes a predictive text module resident in the memory for execution by the processor, the predictive text module being configured to: receive an input from the keyboard, the input comprising a character of a string; gather relevant contextual data based on the input; retrieve any relevant stored data from the storage device based on the input; generate at least one context based prediction based on the received input, the contextual data, and any relevant stored data; display at least one option for completing the string on the display screen based on the at least one prediction; and complete the string if one of the options displayed on the display screen is selected by way of a further input.

[0014] Another aspect of the description provides a method for providing context based predictive text entry on a device having a processor and a keyboard, display screen, and storage device connected to the processor. The method comprises receiving an input from the keyboard, the input comprising a character of a string; gathering relevant contextual data based on the input; retrieving any relevant stored data from the storage device based on the input; generating at least one context based prediction based on the received input, the contextual data, and any relevant stored data; displaying at least one option for completing the string on the display screen based on the at least one prediction; and completing the string if one of the options displayed on the display screen is selected by way of a further input.

[0015] Yet another aspect of the description provides a computer program product comprising a computer readable medium having computer readable code stored thereon for execution by a processor of a device. The computer program product causes the processor to provide context based predictive text entry on the device. The device also has a keyboard, display screen, and storage device connected to the processor. The computer program product comprises code for receiving an input from the keyboard, the input comprising a character of a string; code for gathering relevant contextual data based on the input; code for retrieving any relevant stored data from the storage device based on the input; code for generating at least one context based prediction based on the received input, the contextual data, and any relevant stored data; code for displaying at least one option for completing the string on the display screen based on the at least one prediction; and code for completing the string if one of the options displayed on the display screen is selected by way of a further input.

[0016] Reference is first made to FIG. **1**, which shows a block diagram illustrating a mobile wireless device **102** that may be used for implementing a system and method for context based predictive text entry assistance in accordance with one aspect of the present disclosure. The wireless device **102** communicates through a wireless communication network **104**. The wireless network **104** includes antenna, base stations, and supporting radio equipment as for supporting wireless communications between the wireless device **102** and other devices connected to wireless network **104**. The wireless network **104** may be coupled to a wireless network gateway and to a wide area network, shown in FIG. **2**.

[0017] In one embodiment, the wireless device **102** is a two-way communication device having at least voice and/or data communication capabilities, including the capability to communicate with other computer systems. In one embodiment, the wireless device **102** is a handheld device. Depend-